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ABSTRACT

The Minnesota Research and Development Center for Vocational Education (MRDC) has a major program of research focused on the education of special needs learners. The research study described in this report was a response to the lack of understanding and knowledge about special needs programs and evaluation activities related to these programs. The goals of this project were to (1) develop a conceptual framework that would provide direction to activities related to improving the quality of special needs programs and (2) specifically address some of the evaluation concerns related to these programs. The report is divided into four main parts. The first part presents and describes a conceptual framework for thinking about serving special needs students in vocational education programs. The second part describes how the notion of evaluation relates to this framework and outlines general considerations for the evaluation of special needs programs. Part 3 describes the development, conduct, and results of a survey designed to identify and describe some of the typical support services for special needs students that are available in secondary vocational programs in Minnesota. The final section presents conclusions and recommendations for future research efforts related to the evaluation of services provided to special needs students. (Author)

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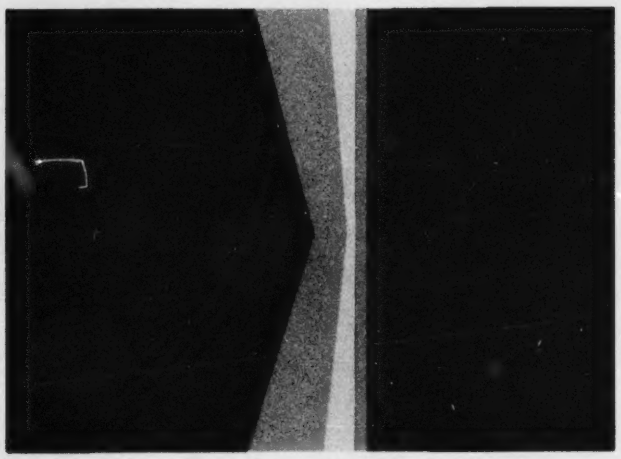
Toward Understanding and Evaluating Special Needs Programs

by Rocco P. Russo



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October 1980

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4. Encourage and conduct training activities designed to increase the number and improve the competence of producers and consumers of vocational education research-related activities.

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This report is one of the results of three years of research and development activities focused on evaluating vocational education programs for special needs learners in Minnesota. The activities have been supported by the Division of Vocational-Technical Education in the Minnesota Department of Education. This effort is part of a larger program of research and development on vocational education for special needs populations in Minnesota which is being conducted by the Minnesota Research and Development Center for Vocational Education.

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Rocco P. Russo

ABSTRACT

The Minnesota Research and Development Center for Vocational Education (MRDC) has a major program of research focused on the education of special needs learners. One research study undertaken by the MRDC, which is described in this report, was a response to the lack of understanding and knowledge about special needs programs and evaluation activities related to these programs. The goals of this project were to: (a) develop a conceptual framework that would provide direction to activities related to improving the quality of special needs programs and (b) specifically address some of the evaluation concerns related to these programs.

The report is presented in four main parts. The first part presents and describes a conceptual framework for thinking about serving special needs students in vocational education programs. The second part describes how the notion of evaluation relates to this framework and outlines general considerations for the evaluation of special needs programs. Part three describes the development, conduct and results of a survey designed to identify and describe some of the typical support services for special needs students that are available in secondary vocational programs in Minnesota. The final section presents conclusions and recommendations for future research efforts related to the evaluation of services provided to special needs students.

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Chapter I

INTRODUCTION

The passage of federal and state legislation has brought about an awareness and responsibility to educate our nation's special needs learners. Federal legislative actions such as Public Law (P.L.) 93-112, P.L. 94-142, and P.L. 94-482 have all played key roles in mandating changes and procedures associated with the planning, development, provision, and evaluation of today's educational programs. The Rehabilitation Act, P.L. 93-112, was passed by Congress in 1973. Section 504 of the Rehabilitation Act prohibits intentional and unintentional discrimination on the basis of physical or mental handicaps in all federally assisted programs and activities (Halloran, 1978). The Rehabilitation Act also requires that recipients of funds from the Department of Health, Education, and Welfare (now the Department of Health and Human Services and the Education Department) take positive actions towards providing handicapped individuals equal opportunities in employment, and in health, education, and social service programs. In 1975 Congress passed the Education for All Handicapped Children Act (P.L. 94-142). This Act mandated actions that were to insure educational benefits and rights for handicapped children and their families. Public Law 94-482, "The Educational Amendments of 1976," included a complete revision of the Vocational Education Act of 1963. This Act reflected a major change in the nation's social and economic awareness by focusing on the preparation of all students for employment. These laws offered greater educational opportunities to handicapped and disadvantaged students who in many cases had been excluded from educational programs in the past.

State legislative actions maintained this same thrust, that is, the assurance of educational benefits and rights for all students. For example, the State of Minnesota, Department of Education, Minnesota Code Agency Rules (5 MCAR § 1.00831) states "special needs supportive services shall assist students with special needs enrolled in vocational instructional programs."

In addition, the American Vocational Association has established a legislative task force for the purpose of providing direction and input for the reauthorization of the Vocational Education Act in 1981 (Update, 1980).

Nine study teams have been organized under this legislative task force to address issues and problems concerning such areas as: (a) vocational education of special populations and (b) vocational education programs for youth and adults.

This past and present educational thrust has channeled extensive efforts and funds into the education of special needs groups from various federal, state, and local sectors. To date, the major direction taken by these agencies has been in the preservice and inservice training of teachers; the modification and development of curriculum materials; and the modification and development of educational and related services designed to serve the special needs learners. Very little attention has been given to research and evaluation activities that would provide: (a) a more logical base from which problems could be studied, (b) quality controls for the desired educational programming mandated by legislation, and (c) accountability standards and information being warranted by federal and state legislation.

The interest and concern for appropriate research and evaluation activities which focus on the special needs learner was the direction chosen in the design of project activities to be undertaken by the Minnesota Research and Development Center for Vocational Education at the University of Minnesota. A research project was initiated to address some of the evaluation issues that pertain to local educational programs that serve special needs learners. The intent of this report is to document the activities and results of this research effort.

Purpose of Project

Numerous issues and problems have been identified concerning the efforts launched by vocational educators to integrate or mainstream special needs students into regular vocational programs. A national study of Part B Handicapped Programs conducted by the Olympus Research Corporation (1975) noted: (a) planning, monitoring, and evaluation information either did not exist, was inconsistent, or was not used at both the state and local levels; (b) state level administrators were not concerned with planning, monitoring, and evaluation information since they considered themselves solicitors and funders of projects; and (c) the process of diagnosis and

assessment of handicapped students encountered difficulties in vocational education programs since attempts to classify the handicapped did not account for individual differences and were at times inaccurate or misleading. In the review of nine different evaluation systems which have been designed to evaluate special needs services, Wentling and Russo (1978) noted differences in these evaluation approaches regarding purpose, approach, and sponsor. It was recommended that future evaluation efforts attempt to relate student assessment, student follow-up, and employer follow-up to special needs evaluation systems in order to provide multiple perspectives to program and service effectiveness. With additional funds and efforts being channeled into special needs programs, the conduct of extensive formal assessment seems warranted.

Thus, the purpose of this project was to: (a) develop a conceptual framework for describing a special needs program which would provide direction to activities related to improving program quality and (b) address some of the evaluation concerns related to these programs. These purposes were addressed in the following steps: (a) identify and describe a conceptual framework for special needs programs; (b) discuss general program evaluation concerns (e.g., evaluation audiences, information needs) related to this framework; (c) identify a typical set of special services that could be associated with a special needs program; and (d) describe this typical set of services in Minnesota in terms of the availability of the service, the provider of the service, the intended target population, and a brief statement as to the purpose and objective(s) of the service. Each of these objectives is discussed in the following sections of this report.

Chapter II

CONCEPTUAL FRAMEWORK FOR SPECIAL NEEDS PROGRAMS

As work was initiated, it was soon realized that no "advance organizer" could be identified related to special needs programs that could serve to direct the research and evaluation efforts through: (a) the identification of the major factors or variables that influence the operation of special needs programs, (b) the identification of the basic educational goals of a special needs program, and (c) the identification and description of the major inputs to a special needs program. Therefore, the first step in this project was to develop a conceptual framework which could serve these purposes.

The Educational Model

After re-reading the legislation, it was surmised that educational programs were being asked to provide educational and related services not only to maximize institutional outcomes, but to maximize each individual's outcomes. The early work by Cronbach and Glaser (1965) related to the Aptitude-Treatment-Interaction (ATI) educational model proved to be consistent with the interpretation of the legislative intents. The ATI model aims to maximize individual payoff by designing or selecting appropriate educational environments and procedures to maximize performance for each learner. This notion requires the demonstration that an aptitude or attribute (individual) is acted upon positively by some treatment. If there are two possible instructional procedures, the variable that produces a disordinal interaction with the treatments [i.e., demonstration that one treatment is best for some subjects and another treatment, for others] provides the basis for decisions to optimize the opportunities for individuals (Reynolds, 1977).

The "aptitudes" of a student are defined as "any characteristics of a person that forecasts his/her probability of success under a given treatment" (Cronbach and Snow, 1977, p. 6). They further explain that personality as well as ability, and other variables such as social class, ethnic

background, and educational history can serve as characteristics that may influence the learner's response to a treatment. The term "treatment" also has a broad meaning: "It covers any manipulable variable" (Cronbach and Snow, 1977, p. 6). Some possible treatment variables presented by Cronbach and Snow are classroom environment, teacher characteristics, and the pace, method, or style of instruction. This rationale provided a basis for Level I of the proposed conceptual framework (see Figure 1). The ATI model was chosen since it is a highly familiar and often utilized model in education, specifically in the field of special education concerning the diagnosis, prescription, and provision of education and related services to exceptional children.

Input Categories

In order to provide a better frame of reference for the development of special needs programs, inputs to the ATI educational model needed to be specified. Level II of the conceptual framework (see Figure 1) utilized the six input categories listed by Stufflebeam, et. al. (1971). These categories represent a well organized and synthesized review of literature pertaining to educational modeling for decision making and evaluation. The input categories have been frequently used and are well understood in the application and analysis of educational programs for the purpose of evaluation. These categories specify possible variables to the "aptitude" and "treatment" segments of the educational model. The framework exhibits that the input to the "aptitude" segment consists of the variable Student since this is what is to be acted upon by some treatment. The "treatment" segment consists of the variables Staff, Community, Curriculum, Finance, and Facilities since these categories are combined in some fashion to form a treatment which is designed to act upon an individual (aptitude).

Program Domains

Level III of the conceptual framework (see Figure 1) depicts a further breakdown of the input categories into twelve program domains [Peak, (1980); Peak and Brown, (1980)]. Program domains indicate or specify key areas of concerns or competencies that must be understood to provide instructional

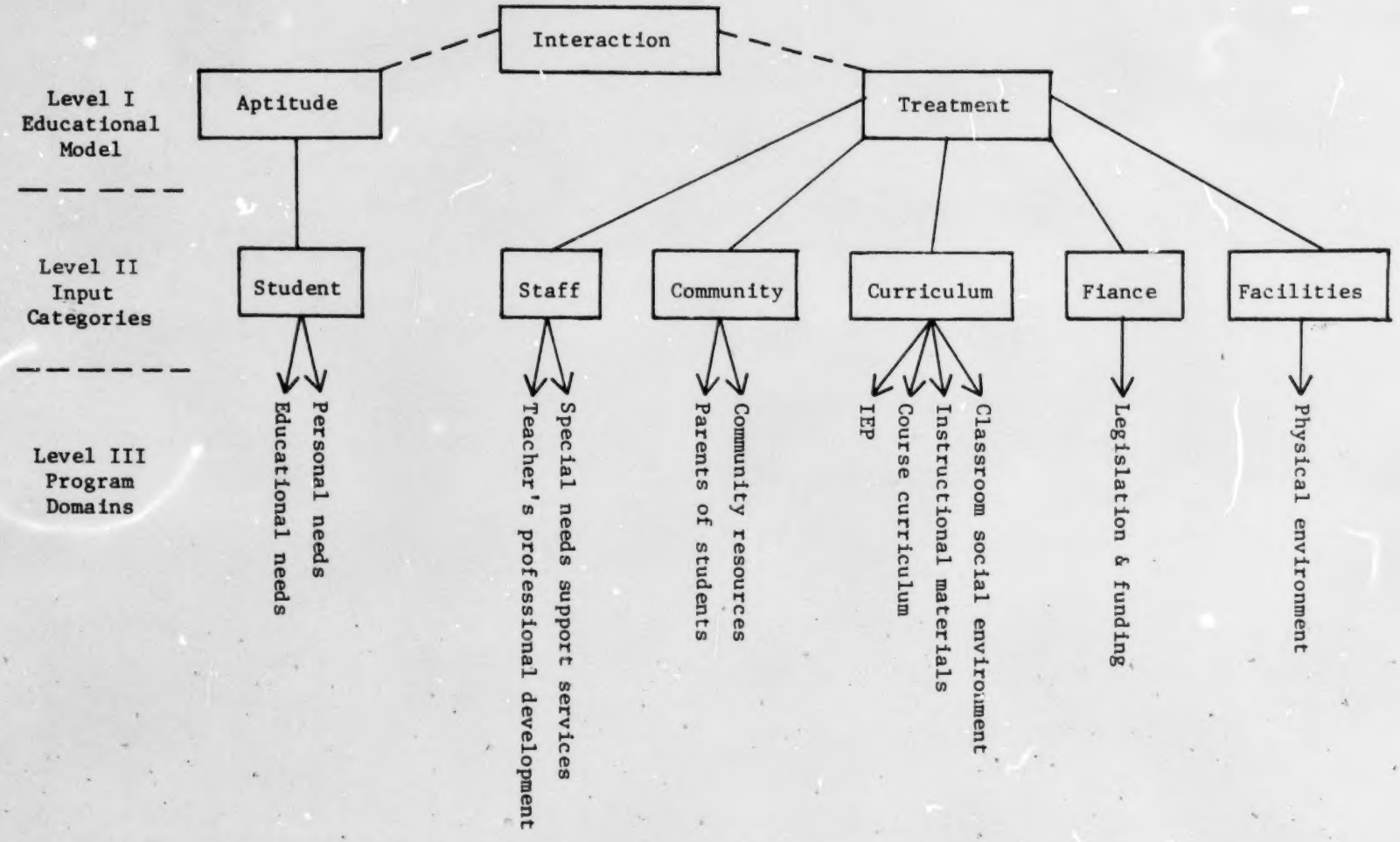

Figure 1. Proposed conceptual framework

and related services (i.e., treatments) to individual special needs learners. The domains evolved from a two year research effort undertaken by the MRDC. The program domains were identified through a categorization of a complete review and synthesis of teacher competencies pertaining to the education of special needs students. Specification of the domains assist in the organization of program inputs which can vary from student to student based on individual need.

Two domains are listed under the input category of Student. These are: (a) student's educational needs and (b) student's personal needs. "Educational needs of the student" includes those concepts and abilities which must be enhanced or mastered by students in order to succeed within a given area of study. These needs may be of a cognitive, affective, and/or psychomotor nature. "Personal needs of the student" includes those interpersonal abilities and attitudes which when developed and demonstrated by students, can enhance their sense of well being and maximize their effective interaction with other people.

The Staff input category consists of the domains of: (a) the teacher's continuing professional development and (b) special needs support services. "Continuing professional development of the teacher" addresses those procedures (formal and informal) by which an educator continues to improve his/her ability to educate all students. "Special needs support services" addresses those specialists and supplemental educational personnel who are available to enhance the educational experiences of students with special learning needs that cannot be sufficiently addressed by a teacher alone in a regular classroom setting.

The Community input category specifies the domains of: (a) parents of students and (b) community resources. "Parents of students" constitutes those ways in which the parents and/or legal guardians of special needs learners can best be utilized in order to enhance their child's learning experience (both at school and at home) and actively participate in the planning and delivery of those experiences with the child and his/her teacher(s). "Community resources" constitutes those persons, agencies, and/or services at the local, state, and national levels which can supplement and enhance the value and effectiveness of school experiences for students.

The Curriculum input category is subdivided into four program domains.

These are: (a) the Individualized Education Plan (IEP), (b) course curriculum, (c) instructional materials, and (d) the classroom social environment. The "IEP" domain addresses concerns related to the written plan which specifies processes, procedures and instructional activities to be implemented by local education agencies, in order to insure that all identified special needs learners are provided with "appropriate" educational experiences within their "least restrictive environment". The domain "course curriculum" specifies those goals, objectives, activities, and/or procedures that determine which topics will be presented, how, when, and what achievement levels will be expected of students within a course. "Instructional materials" constitutes the wide range of materials, commercial and teacher made, (e.g., books, handouts, audio-visual equipment, consummables) which can be utilized during instructional activities in order to focus on and/or enhance the effectiveness of the educational process. The domain "classroom social environment" address the development and maintenance of those attitudes and interactions between educators and students which must exist in the learning environment to help all students achieve their educational, social, and emotional potential.

The input category of Finance deals with the program domain "legislation and funding". This domain concerns those legal mandates that specify: (a) which persons are eligible for educational services beyond those typically provided to students in regular classrooms; (b) who is responsible for the administration, funding, and delivery of those services; and (c) certain rights of educators, special needs learners, and their parents.

The Facilities input category encompasses the domain "physical environment". This domain focuses on those physical characteristics of an educational facility which affect access to and movement through a building and the utilization of the various equipment, materials, and services within the building.

The twelve program domains are meant to encompass the array of factors which can be managed in the development and implementation of special needs programs. The program domains are intended to provide direction to such activities as program planning, program development, and program implementation. Use of the program domains in these realms serves to provide a framework which identifies the issues and concerns relevant to special needs programs.

Support Activities

The twelve program domains, as previously stated, are intended to provide direction to key program activities that led to the assurance of quality in the planning, development, and delivery of special needs programs. These program activities can be outlined as a support system for the special needs educational model. Such a support system has been identified in the work of James J. Gallagher (1978). The elements of this support system are: (a) research, (b) development, (c) demonstration, (d) personnel preparation, and (e) technical assistance.

Figure 2, depicts the relationship of these support activities to the twelve program domains. The objectives of these activities, as stated by Gallagher, are "to generate, transform, and deliver valid ideas and skills to the people who provide direct assistance to exceptional children and their families." The support activities are defined as follows:

Research:	The discovery of new knowledge.
Development:	Synthesis of available knowledge to generate a specific product.
Demonstration:	Illustration and evaluation of exemplary or novel programs.
Personnel preparation:	The training of new or retraining of experienced professional or paraprofessionals.
Technical assistance:	Systematic consultation and short-term training resource systems.

Each of the cells in Level IV of Figure 2 represents an activity that could be undertaken to address concerns related to the program domains. For example, the cells under the domain titled "Teacher's professional development" identify activities that could be undertaken to assist teachers in working with special needs learners. Research activities could be designed to identify valid competencies needed by teachers to work successfully with special needs learners. Developmental activities would be designed to develop curriculum materials which would enable teachers to gain the needed competencies. Delivery approaches would need to be illustrated and evaluated in order to present the curriculum materials to teachers. Professionals and/or paraprofessionals would need to be trained to deliver the curriculum materials. And finally, consultants may also be identified and made available to assist teachers in the application and

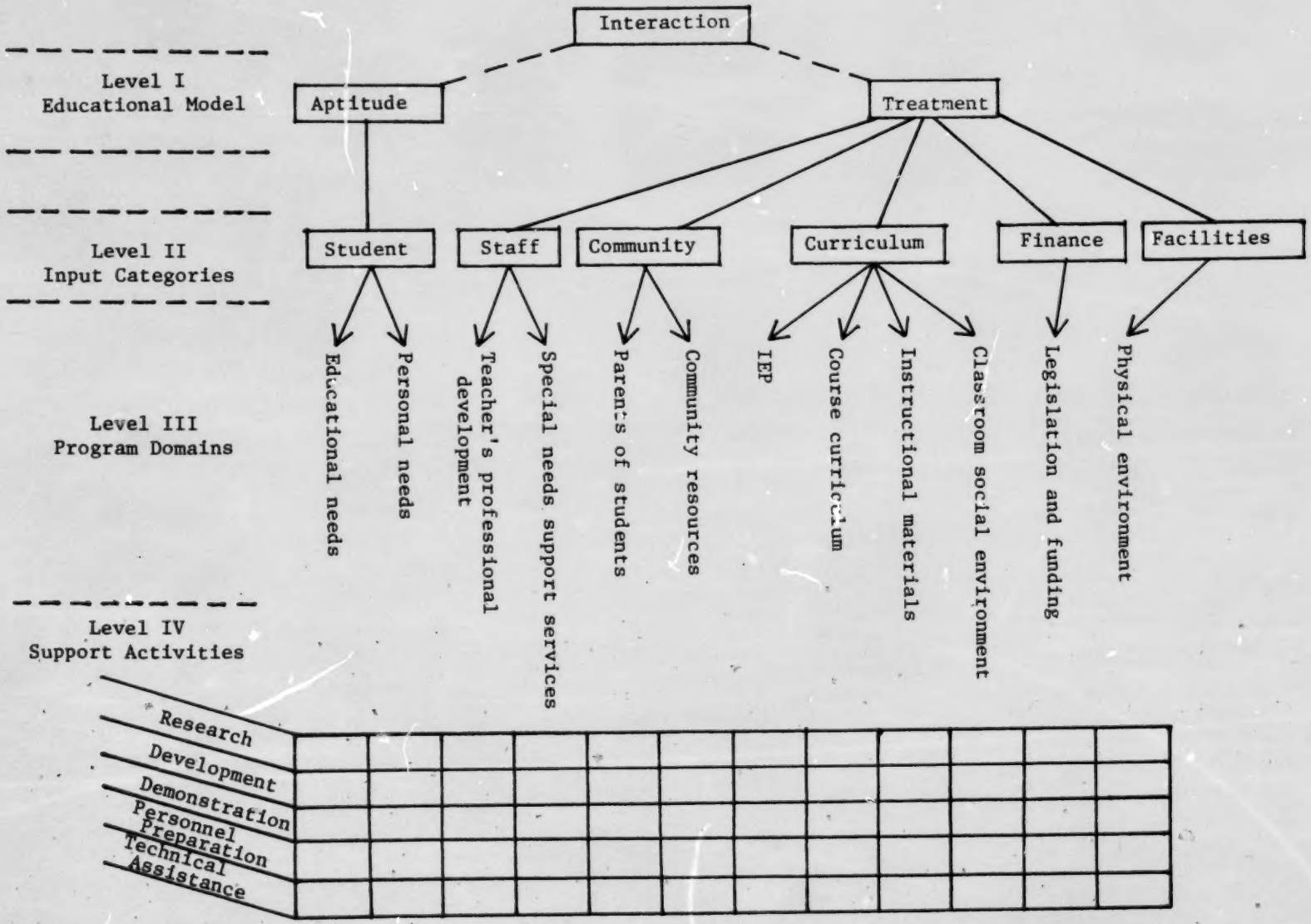

Figure 2. Relationship between program activities and the conceptual framework

refinement of these newly gained competencies.

The conceptual framework presented thus far, has provided a basis for: (a) understanding how individual students interact with a special needs program, (b) identification and understanding of the major factors or variables (domains) in the development and delivery of special needs programs, and (c) identification of a support system of activities for program improvement. Given this framework which defines a special needs program, the issue of program evaluation can be addressed with at least some notion of <u>what</u> is to be evaluated.

Chapter III

PROGRAM EVALUATION AND THE CONCEPTUAL FRAMEWORK

Program evaluation has taken on various emphases dependent on the particular set of circumstances or characteristics unique to a specified program. Some example emphases have been: (a) the determination of student progress and the effectiveness of educational innovations, (b) the facilitation of intelligent judgements by decision-makers, and (c) the explanation of educational effects based on criteria apart from the program's own conceptual framework. In viewing program evaluation as it relates to programs that serve special needs learners, the identification of unique circumstances or characteristics of these programs should first be addressed.

Evaluation Guidelines and Considerations

The unique characteristics or circumstances that relate to special needs programs can be identified through an analysis of the intent of federal legislation for the education of special needs learners. The intent of legislative actions taken has been to assure a free, appropriate public education for all special needs learners. Since "appropriateness" of educational services could not possibly be defined *a priori* for the variety of special needs students who need services, steps have been taken to specify a set of procedures that must be implemented to insure that educational decisions pertaining to these students are appropriate (Kennedy, 1979). Public Law 94-142, for example, has outlined four procedures that are intended to insure appropriateness. These are: assessment procedures, placement procedures, programming procedures, and due process procedures. Kennedy (1979) provides a brief description of these procedures.

> Assessment procedures. Assessment procedures specify that efforts should be undertaken to insure that the identification and evaluation of handicapped students are designed to be non-discriminatory. Public Law 94-142 suggests: (a) the reliance on individually administered tests rather than group tests, (b) the use of observation in conjunction with paper-and-pencil tests, (c) the use of multidisciplinary assessment teams, and (d) the assessment be conducted in the child's native language.

These practices are believed to enhance the likelihood of non-discriminatory assessment procedures.

Placement procedures. Placement procedures specify that the special needs child be placed in the least restrictive environment commensurate with his/her unique needs. That is, handicapped children should not be indiscriminately segregated simply because of their handicap nor should they be placed *en masse* in regular classrooms. The phrase "least restrictive environment" is coupled with the phrase "commensurate with the child's unique needs" to emphasize the balancing of concerns that must occur in making a placement decision.

Programming procedures. Programming procedures specify assurances by which each child's unique needs are met. This is accomplished for each child via a written individualized educational program which identifies the findings from the child's assessment, specifies long-term goals and short-term goals, and states how and when the child is to be reassessed. A team, not an individual, is responsible for developing the individualized educational program.

Due process procedures. Due process procedures specify a plan to handle situations in which the parent(s) disagree with the team's decisions regarding the educational program of their child. Any parent may request an impartial hearing to examine differences of opinion and to determine the child's eventual program.

These four core procedures outline boundaries and specify audiences as well as guidelines for special needs programs. First, these four procedures specify considerations such as the audiences that are to be involved in the special needs program. That is, a team, not an individual, is responsible for developing the child's educational program. This team includes, the special needs child; his/her parents; the child's past and current teachers (e.g., special education teachers, vocational teachers); warranted specialized staff (e.g., school psychologist, audiologist); special needs staff and administrators; school administrators; community personnel; and "regular" students. The concerns of these audiences or groups should be addressed in the development and establishment of evaluative activities for special needs programs.

Second, these four procedures outline specific boundaries and guidelines for special needs programs. Within these boundaries and guidelines are the following four major activities: (a) pre-assessment, (b) instructional design, (c) instructional delivery, and (d) post-assessment. Figure 3 exhibits these activities in time sequence. The overlap of activities is intended to show the relationship among these activities as well as the

flow of information. The division of these activities is based upon their chronological relationship to the special needs student as he/she progresses through the special needs program. A similar approach has been proposed by Phelps and Wentling (1977) as a system for the identification, assessment, and evaluation of special needs learners.

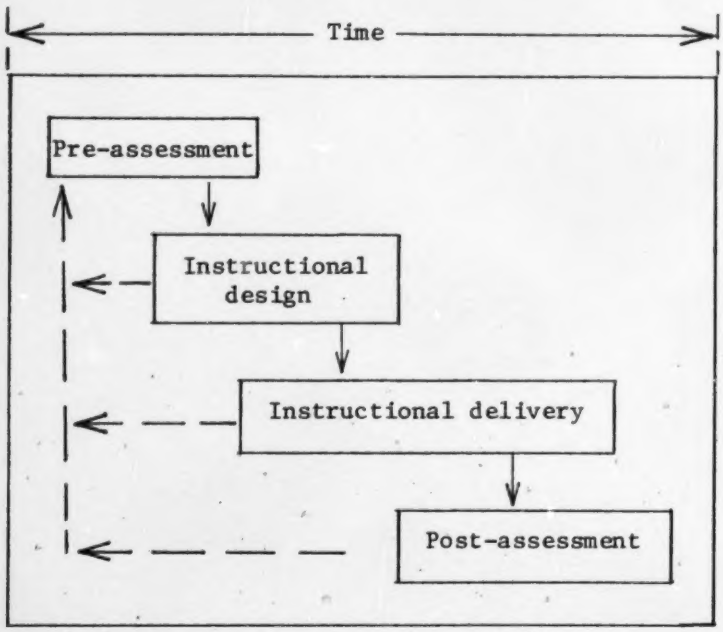

Figure 3. Major activities within the guidelines of a special needs program.

Program Evaluation Emphasis

The relationship of these procedural activities to the conceptual framework is exhibited in Figure 4. These activities are utilized in the design, implementation, and evaluation of a "treatment" which is to act upon a given "aptitude" (student) in order to maximize educational payoffs for that individual. The end results of this interaction should be positive

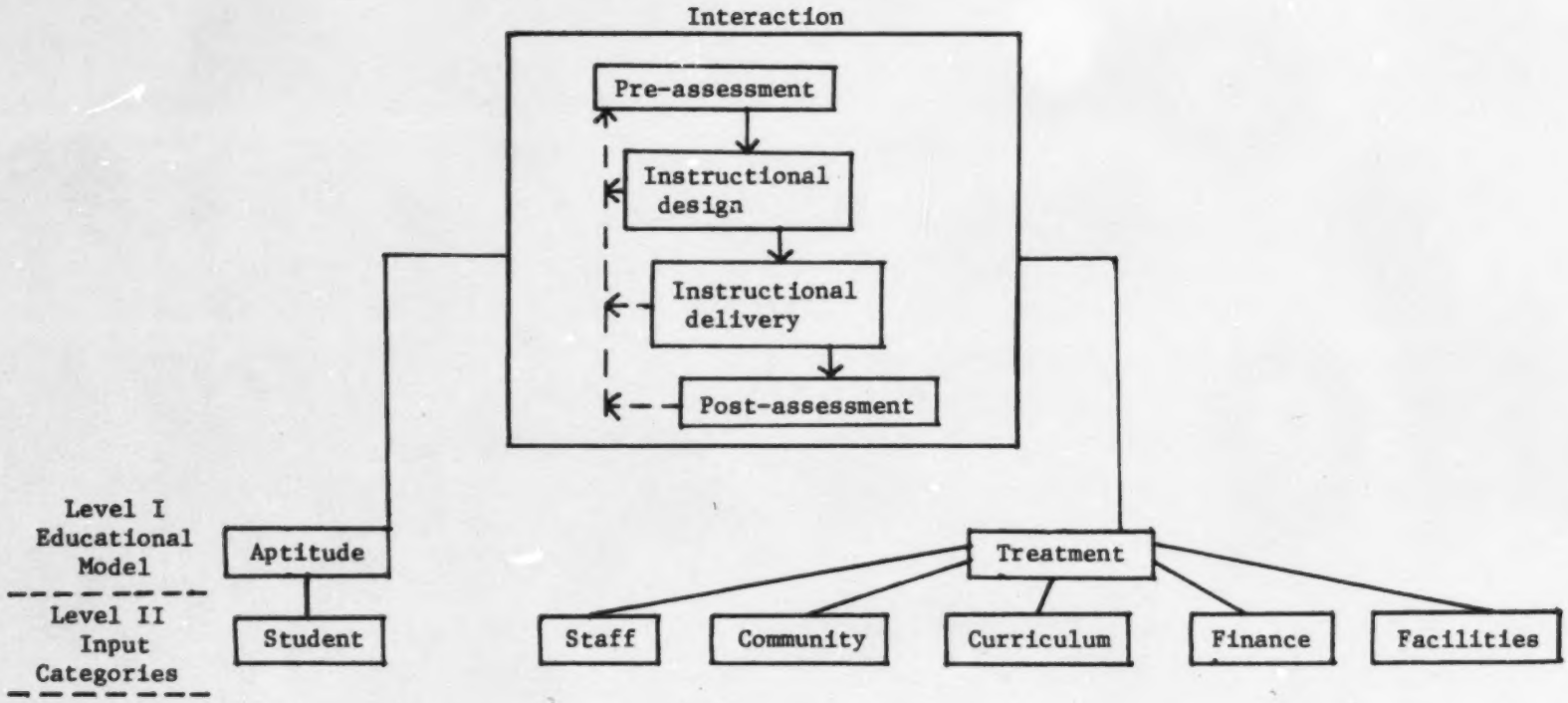

Figure 4. Program evaluation and the conceptual framework

educational accomplishments. Therefore, the emphasis of these activities is on the determination of appropriate educational programming for a particular special needs learner. Thus, one appropriate focus or emphasis for program evaluation activities would be on facilitating the determination or decision process for appropriate educational programming. A decision-oriented approach makes it quite simple to translate these four procedures into program evaluative concerns and activities. This was accomplished through the use of the Content-Input-Process-Product (CIPP) evaluation model proposed by Stufflebeam, et. al. (1971). The CIPP model was chosen since: (a) it is a decision-oriented approach to evaluation; (b) at face level, it exhibits a close relationship or fit between the evaluation model's four components and the special needs program activities; and (c) it has become a relatively well understood and commonly utilized approach to evaluation.

Special Needs Program Evaluation Basis

Specification of evaluation of activities and concerns are presented below for each of the four procedural activities of a special needs program. The CIPP model provided the means by which the activities were linked to an evaluative basis.

Pre-assessment

The pre-assessment component attempts to identify and describe a rationale for program goals and objectives. Ultimately, the special needs program's very existence is questioned and justified. This description follows very closely the mode of context evaluation as defined by Stufflebeam, et. al. (1971). This component aids in the development of an operating context for the special needs program. In the development of the operating context, consideration needs to be extended to the over-riding philosophy and goals of the educational program as well as local, state, and federal legislation such as P.L. 94-482 and P.L. 94-142. Information obtained for this component serves to substantiate planning decisions, establish program priorities, and establish a frame of reference for interpreting program effects. In addition, a framework is established for the instructional design and instructional delivery components. Pre-assessment efforts should help determine what could or should be promised

to students who interact with the special needs program. Guidelines are also established for determining what type of students qualify for services through this program. Finally, the operating context specifies the ultimate boundaries of the program. This information aids in determining the extent to which the special needs program boundaries overlap with other educational and related programs already in existence.

Instructional design

The instructional design component identifies program resources, strategies, and designs that would lead to an effective operational process. This component follows the mode of input evaluation as identified by Stufflebeam, et. al. (1971). Information gained from this component leads to an implementation of a particular set of closely related strategies. The selection of a strategy or design is based upon the acquisition of resources that are available to a particular program. The decision as to what resources are available and/or required should reflect the information which exists in the operating context identified from the pre-assessment component activities. Basically, the instructional design component provides information to determine the type and amount of assistance that is required to meet program goals and objectives; how to operationally state the objectives; what general strategy should be utilized; and what design or procedural plan should be employed to implement the selected strategy.

Instructional delivery

The instructional delivery component aids in recording information about what is occurring and under what conditions in regard to previously selected strategies and program design. This component follows the mode of process evaluation as identified by Stufflebeam, et. al. (1971). The information obtained through activities undertaken in this component aids in: (a) identifying and understanding the variations among strategies and program designs being implemented, (b) the provision of knowledge regarding program inputs or variables that may be manipulated, and (c) the specification of the environmental conditions that exist in the special needs program. Overall, the information regarding instructional delivery provides special needs project personnel with information needed for projecting and solving process-related difficulties and provides a record by which the interpretation of project attainments is facilitated.

Post-assessment

The post-assessment component aids in the identification and determination of the special needs program's quality and effectiveness based upon a detailed inspection of the program's outcomes and effect. This component follows the mode of product evaluation as identified by Stufflebeam, et. al. (1971). Information obtained at this stage leads to the ultimate determination of the success or failure of the special needs program. Ultimately, decisions are made regarding the program's continuation, termination, modification, or refocus (Worthin and Sanders, 1977). In the review of the program outcomes and effects, attention must be given not only to the individual changes but to the various program audience changes as well. The success or failure of the activities undertaken in this component lies in the interpretation of the goals and objectives specified in the operating context as well as the interpretation of information regarding the instructional delivery or process.

A final consideration needs to be addressed related to the evaluation components that have been identified. That is, the notions of formative and summative evaluation activities.

Formative versus summative evaluation

In order to accomplish specific evaluation objectives related to the above four components, one of two evaluation purposes may be more appropriate. The commonly accepted division of evaluation purposes are formative and summative.

Formative evaluation requires collecting and sharing information for program improvement (Morris and Fitz-Gibbon, 1978). The rationale is to provide feedback and data in a rather immediate sense in order to make corrections immediately. Instruments and/or procedures are designed specifically to monitor aspects of the special needs program in order to determine where problems are emerging. By using formative evaluation, problems can be more quickly identified and rectified (Orlick and Murphy, 1979). Overall, these formative activities aid in the development of the program and also aid to conceptualize what the program is and how it works.

Summative evaluation views the overall impact of the program. It differs from formative evaluation in its timing and audience and in the evaluator's relationship to the program. When a program has passed its developmental stage and is functioning as intended, the program is ready to be judged and summarily described (Morris and Fitz-Gibbon, 1978). Judgement

is made in the determination to continue, terminate, modify, or refocus the program. Unlike the formative evaluator whose interests are to work with the program staff and suggest refinements for improvement while the program is operating, the summative evaluator's function is to collect information and write a summary report showing what the program looks like and what has been achieved.

Figure 5 exhibits a conceptual view linking formative and summative perspectives to each of the program evaluation components. This conceptual view establishes eight areas or cells for which description, evaluation procedures, and considerations may be further specified for special needs programs.

The special needs program evaluation basis, presented in this section, has provided a way to think about the decisions made when developing and improving a special needs program. Four aspects of the interaction between student and program were identified as possible foci for evaluation. Each focus is equally important, but differs in decisions being made and information needs. The aspects were: (a) pre-assessment (context), (b) instructional design (input), (c) instructional delivery (process), and (d) post-assessment (product). Within each of these aspects, evaluation activities may in turn take a formative (improvement) versus summative (accountability) perspective or purpose.

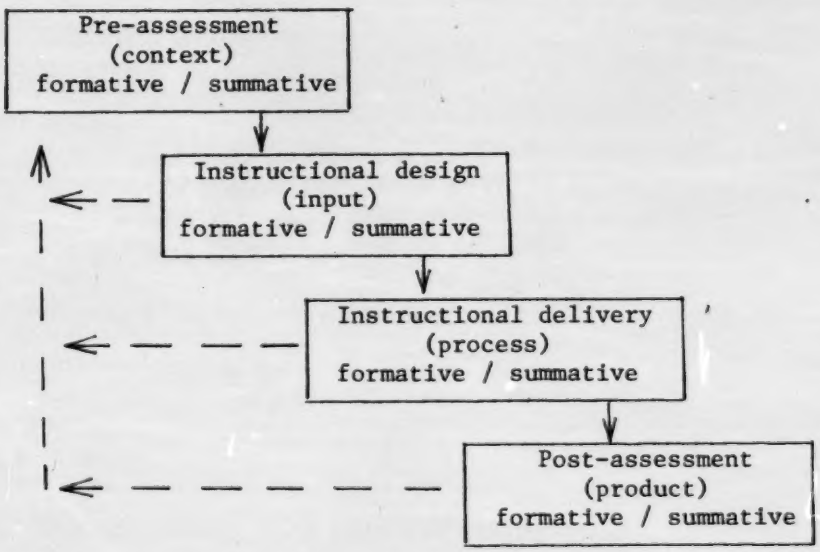

Figure 5. Formative/summative relationships to special needs program evaluation basis.

Chapter IV

SPECIAL NEEDS SERVICES IN VOCATIONAL EDUCATION

The last two objectives of this research project were to: (a) identify a typical set of special services that could be associated with a special needs program and (b) describe this typical set of services, in Minnesota, in terms of the availability of the service, the provider of the service, the intended target population, and a brief statement as to the purpose and objective(s) for the service. These objectives address the concern associated with the identification and monitoring of resources that are used in the delivery of instruction to special needs learners via a special needs program. The concern for identifying and monitoring services delivered to special needs students relates to the instructional delivery (process) component of the special needs program evaluation basis. In order to accomplish these objectives, a survey was conducted to collect the necessary data.

Purpose of Survey

The primary purpose of the survey was to collect information from various secondary educational programs in Minnesota regarding the services that these programs provide to vocational special needs learners. The purpose of the survey was designed to meet two underlying intents of this study. These were: (a) to better operationally define what processes are to be evaluated with respect to special needs programs and (b) to assist state personnel in developing evaluation priorities and activities which would facilitate formative judgments regarding these processes. Prior to the development of a survey instrument and procedure, key considerations were identified in order to provide direction and focus for the developmental activities. These considerations were: (a) identification of potential support services that <u>may</u> exist in programs that serve special needs students, (b) identification of information that was needed to describe these services (i.e., availability of the service; provider of the service; and objective(s) and purpose of the service), and (c) identification of the audience who was to complete the survey

instrument. Each of these considerations are addressed below.

Potential Special Needs Support Services

A list of twenty-five (25) support services or experiences were identified for use in the survey instrument. A listing of these support services is exhibited in Appendix A. This list evolved from a synthesis and review of various lists of services that were either proposed or used in reports and projects that appeared in the literature [Albright, Fabac, and Evans (1979); Altfest (1975); Weisman and Burbaker (1976); Howard (1979); Phelps (1979); U. S. Office of Education (1979); Schneck, Lerwick and Copa (1978); and Stevenson (1979)]. This list of potential services provided the structure for the survey instrument that was developed.

Instrument

After the list of potential support services was identified, a series of five questions about the services was developed. This series of questions was designed to provide data about each of the potential support services regarding its availability, the service provider, the school/district's official title for the service, the intended target population, and objective(s) and purpose of the service. This initial instrument entitled "Vocational Special Services Survey" was pilot-tested using a sample of staff members from the Minnesota Research and Development Center. The reactions and comments obtained from this pilot-test provided a basis for refinement of the survey instrument. The final survey instrument, exhibited in Appendix B, presents each of the twenty-five (25) potential support services followed by the series of five questions. An example is presented in Figure 6.

The instructions to the survey instrument included a definition for the phrase "special needs students" in order to provide a consistent frame of reference for all respondents. The definition provided was as follows: "the phrase special needs students refers to individuals with characteristics which prevent them from succeeding in vocational education programs without additional or special assistance."

Diagnostic/Prescriptive Services

Is this service available _____ Yes _____ No

If yes,

a) Who provides this service? (Check all appropriate.)

___ Vocational Education ___Special Education __Regular Sch. Dist.
___ Community (e.g., private, university, government)
___ Other (Specify)

b) What is your school/district's official title for this service? _____

_____

c) Who is the intended target population? _____

_____

d) What are the objectives and purpose of this service? ___

_____

Figure 6. Example survey question

Sample

One objective of the survey was to identify a set of typical services that would be available to vocational special needs learners through secondary educational programs. It was believed that directors of such programs would be a knowledgeable and cooperative information sources for the answers posed on the survey instrument. An initial sample of fifty-nine (59) special needs program personnel was identified as likely candidates from which data was to be requested. The sample was identified and drawn in total from two educational directories published by the Minnesota State Department of Education. These directories were: *Vocational Directors and Other Administrative Personnel in Large School Districts with Vocational Education in Grades K-12* (1979) and *Minnesota Education Units Organized under Joint Powers Act* (1979). Larger school districts and educational units were chosen since it was believed that a greater variety of services would be available in these districts and units than would be available in the smaller school districts and units. This initial sample

(n=59) consisted of: (a) twenty-two (22) Special Education Interdistrict Council and Cooperative Directors in the State of Minnesota, (b) twenty-three (23) Vocational Directors of large school districts with vocational education in grades K-12 in Minnesota, and (c) fourteen (14) special education/special services personnel in large school districts with vocational education in grades K-12 in Minnesota.

Data Collection

Each member of the sample was contacted by telephone in order to: (a) briefly describe the purpose of the survey, (b) familiarize the respondent with the "Vocational Special Services Survey" instrument, and (c) request their cooperation in completing the instrument. Only one special service director declined to be part of the sample. A listing of the school districts as well as the special education interdistrict councils and cooperative centers that were part of the sample is exhibited in Appendix C. Each of the fifty-eight (58) remaining respondents were mailed a survey instrument with an attached cover letter. The cover letter explained the purpose of the research project and survey and provided detailed instructions on how to complete the instrument. Five weeks following this mailing, a second mailing was made to all non-respondents. This mailing included a second copy of the instrument and a cover letter encouraging the completion of the survey.

Results

An overall return rate of 84.5% was achieved. Of this figure, 70.7% returned completed surveys and 13.8% returned the survey indicating that they were unable to complete the instrument, mainly due to time constraints to their schedules. In addition, 15.5% of the sample did not return the survey instrument. Table 1, exhibits the various return rates for the overall sample as well as the return rates for each of the individual sub-groups identified in the sample. The highest overall response rate (95.5%) was achieved from directors of special education councils/cooperatives followed by overall response rates of 78.2% and 76.9% for vocational directors and special education/service personnel respectively.

Table 1

Survey Response

	Total sample	Vocational directors	Special education/services personnel	Special education council/cooperative directors
Returned completed	70.7%	65.2%	53.8%	86.4%
Returned unable to complete	13.8	13.0	23.1	9.1
No response	15.5	21.8	23.1	4.5
Total	100.0% (n=58)	100.0% (n=23)	100.0% (n=13)	100.0% (n=22)

The detailed results of the survey are presented in three tables which are shown in Appendix D The first table (Table 2) exhibits the survey responses regarding the availability of the potential support services. Respondents were asked to indicate, by answering "yes" or "no", if each of the potential support services were available to their special needs students. Percentages of "yes" and "no" responses by support services are exhibited for the total sample and for each of the three sample sub-groupings.

The second table (Table 3) shows the survey responses regarding the provider(s) of the potential support services. Respondents were asked to indicate who provided the services that were available to their special needs students. Percentages were calculated for the total sample and for each of the three sub-groups and are shown for each of the categories of providers (i.e., vocational education, special education, regular school/district, and community). The provider category "other" was deleted since this was seldom used or, if used indicated that a service was provided by the Department of Vocational Rehabilitation. This response was interpreted to be part of and, therefore, included in the provider category of "community."

All percentages shown in Table 3 are based on a non-duplicated total count of responses shown in the rows titled "total responded." Since double counts are possible when, for example, the service is stated

as being provided by vocational education and special education, two "totals" are shown. The first total labeled "total responses" represents the number of responses provided to a survey item; this calculated percentage is always greater than 100.0% when more responses are received for that item than the number of respondents. The second total, labeled "total responded" represents the number who responded to a survey item; this calculated percentage is always equal to 100.0%.

The third table in Appendix D (Table 4) shows the survey responses regarding the intended target population of the services provided to special needs learners. Respondents were asked to provide an open-ended response to "who was the intended target population for each of the services?" These open-ended responses are reported using the categories of "handicapped," disadvantaged" and "all-students." The handicapped category included responses such as "handicapped students," "deaf students," "blind students," or any of the U. S. Office of Education handicapped classifications. The disadvantaged category included responses such as "disadvantaged students." The all-students category included responses such as "available to all students," "all-students in need or identified as needing this service," and all-students who express an interest." Percentages were calculated for the total sample and the three sample sub-groupings and are exhibited for each of the potential support services.

A review was conducted of the open-ended responses regarding the school's/district's official title for these responses. A high degree of variability was found to exist for these responses. Due to this variability, the school's/district's official titles that were provided were not summarized and results are, therefore, not presented in this report. However, titles were scrutinized for each set of individual responses to note any overlap that might exist across services.

Finally, a review was conducted of the open-ended responses regarding the objective(s) and purpose of the services available to special needs students. An overall statement of the objectives and purpose of each of the support services was developed from this review. These overall statements are presented by type of service in the text below. As a means to make the findings of the survey clear and orderly, the data exhibited in Appendix D (Tables 2, 3 and 4) will be presented and discussed for each of the twenty-five (25) potential support services following the synthesized statement of purpose.

Diagnostic/prescriptive services

The provision of services that assist students and staff in (1) the identification of special needs students and (2) the development of programs and alternatives to meet identified needs.

Overall, 97.4% of the respondents indicated that this service was available to their special needs students. The only "no" responses, 2.6% overall, were indicated by the special education council/cooperative directors.

This service is indicated as being provided jointly by special education (91.4%), regular education (34.3%), and vocational education (28.6%).

The primary target population is described to be "all-students" (57.1%) and "handicapped students" (42.9%). These two categories accounted for all of the responses; disadvantaged students were not mentioned as a target population by any of the three sample sub-groups.

Referral services

The provision of a systematic procedure for (a) identifying special needs students, (b) identifying the learners' educational and related needs, and (c) prescribing services and programs that are designed to meet those needs especially those services and programs existing through outside agencies.

It should be noted that the objective(s) and purpose statements for diagnostic/prescriptive services and referral services exhibited much overlap. The one distinguishing characteristic was the mention of services and programs available through outside agencies in association with the referral service responses.

This service was indicated as being available to special needs students by 100.0% of the respondents. This service was further described as being jointly provided by special education (87.2%), vocational education (41.0%), the community (28.2%), and the regular school/district (22.0%). The primary target population was indicated to be all-students (72.7%). Handicapped students were mentioned by 27.3% of the respondents, while the disadvantaged students were not cited by any of the respondents.

Guidance services

Assisting students with (a) secondary and post-secondary educational and employment planning, and (b) various aspects of their personal and interpersonal growth.

This service was available to special needs students through 100.0% of the programs as indicated by the respondents. This service was mainly

seen as being provided by the regular school/district as indicated by 94.7% of the respondents. Overlap in service provider was mostly indicated in the areas of vocational education (34.2%) and special education (23.7%). The primary target population was indicated to be all-students (88.2%). Handicapped students were mentioned by 11.8% of the respondents, while the disadvantaged student was not mentioned by any of the respondents.

Psychological services

> Assisting students and staff with the development and implementation of an appropriate educational and personal development program that focuses on individual and group counseling, and behavioral modification.

Much overlap was indicated in the responses given to guidance services and psychological services. Differences noted for psychological services were in the reference to counseling and behavioral modification techniques as well as the mention of a school psychologist.

This service was indicated as being available by 95.0% of the respondents. The "no" responses were indicated by 7.1% of the vocational directors and 14.3% of the special education/service personnel. This service was indicated as being provided by special education (100.0%), the community (27.7%), and the regular school/district (25.0%). This trend was not supported by the special education/service personnel who indicated that this service was being provided solely (100.0%) by vocational education. All-students was indicated by 87.9% of the respondents as being the target population. Handicapped students were mentioned by 12.1% of the respondents, while disadvantaged students were not mentioned.

Medical services

> Assisting students in meeting medically related needs so that the student is able to benefit from their specified educational program.

This service was described as being available to special needs students by 53.8% of respondents. The provider of this service was indicated to be the regular school/district (60.0%), special education (35.0%), the community (20.0%) and vocational education (15.0%). The main target population was indicated to be all-students (88.2%). Handicapped students were mentioned by 11.8% of the respondents, while the disadvantaged student was not mentioned.

Occupational therapy services

The provision of services to special needs students that assist

them in adapting to their special need(s) and school programming through a focus on gross and fine motor development.

This service was indicated as being available by 82.5% of the respondents. The provider of this service was described to be special education (90.9%) and the community (24.2%). The target population was indicated to be handicapped students (51.7%) and all-students (48.3%). The disadvantaged student was not mentioned by any of the respondents.

Physical therapy services

Assisting students in promoting physical growth through maximization of the individual's mobility potential in order to enable them to attain their educational goals.

This service was indicated to be available by 61.5% of the respondents. The provider of the service was described to be special education (66.7%) and the community (50.0%). The target population was indicated to be all-students (60.0%) and handicapped students (40.0%). All of the special education/service personnel indicated that the sole target population was handicapped students. No mention was made of the disadvantaged student by any of the respondents in reference to the target population.

Remedial reading services

The provision of assistance to students who require improvement and development of basic reading skills.

This service is provided to special needs learners through 94.7% of the programs as indicated by the respondents. All of the special education council/cooperative directors indicated that this service was available. The main provider of this service was described to be the regular school/district (77.8%). Special education (38.9%), vocational education (16.7%), and the community (11.1%) were also indicated as providers of this service. All-students (77.4%) and handicapped students (22.6%) were indicated as the target population. No mention was made of the disadvantaged student by any of the respondents.

Remedial math services

The provision of assistance to students who require improvement and development of basic math skills.

The description of this service very closely resembled the description of remedial reading services with respect to the availability, provider(s), and target population. This service is provided to special needs learners through 86.1% of the programs as indicated by the respondents.

All of the special education council/cooperative directors indicated that this service was available. The providers of this service were described to be the regular school/district (57.1%), special education (57.1%), vocational education (10.7%), and the community (3.6%). All-students (73.1%) and handicapped students (26.9%) were indicated as the target population. No mention was made of the disadvantaged student by any of the respondents.

Technical tutoring services

> Assisting students in obtaining and understanding terminology and/or concepts that would promote their individual technical competency.

Only 47.4% of the respondents indicated that this service was available to their special needs students. Primarily vocational education (88.2%) was indicated as the provider of this service. The regular school/district (29.4%) and special education (23.5%) were also mentioned as providers of this service. All of the special education/service personnel described this service as being provided only by vocational education. All-students (76.5%) and handicapped students (23.5%) were indicated as the target population. No mention was made of the handicapped students by the special education council/cooperative directors and no mention was made of the disadvantaged students by any of the respondents.

Homebound instructional services

> The provision of on-going instruction in order that a student may maintain academic achievement while the student is unable to attend his/her regular program

This service was indicated to be available to special needs students by 97.5% of the respondents. All of the "no" responses, were indicated by 28.6% of the special education/service personnel. The providers of this service were described to be special education (79.5%) and the regular school/district (38.5%). All-students (90.9%) and handicapped students (9.1%) were described to be the target population by the respondents. No mention was made by any of the respondents, of the disadvantaged students.

Reader and interpreter services

> The provision of a communication vehicle that is designed to equalize educational opportunities and assist students in reaching educational goals.

This service was indicated as being available to special needs students

by only 63.2% of the respondents. The providers of this service were indicated to be special education (69.6%), the regular school/district (26.1%), vocational education (21.7%), and the community (13.0%). Handicapped students (66.7%) and all-students (33.3%) were described to be the target population of this service. All of the special education/service personnel indicated that handicapped students were the only target population of this service. No respondent mentioned the disadvantaged student as an intended target population.

Communication skill development services

> The provision of services, which may focus on speech therapy, that assist students in improving and acquiring communication skills.

Seventy percent (70%) of the respondents indicated that this service was available to their special needs students. The providers of this service were described to be special education (75.0%), the regular school/districts (39.3%), and vocational education (10.7%). All-students (63.7%), handicapped students (33.3%), and disadvantaged students (3.0%) were cited as the intended target population. All of the disadvantaged student responses were indicated by 10.0% of the vocational directors.

Transportation services

> The provision of transportation to students in order that they may be provided equal educational opportunities.

This service was indicated as being provided to special needs students by 90.0% of the respondents. All of the "no" responses were cited by 14.3% of the special education/service personnel. This service is described as being jointly provided by the regular school/district (88.6%), special education (28.6%), vocational education (14.3%), and the community (8.6%). All-students (77.4%) and handicapped students (22.6%) were described as being the intended target population. The disadvantaged student was not mentioned by any of the respondents.

Job seeking and job keeping skill development services

> The provision of experiences to students in order that they may become comfortable and capable in seeking and maintaining employment opportunities.

This service was indicated as being available by 94.7% of the respondents. All of the special education council/cooperative directors indicated that this service was available to their special needs students. One of the main providers of this service was described to be vocational

education (82.4%) along with special education (52.9%) and the regular school/district (50.0%). All-students (72.4%) and handicapped students (27.6%) were descirbed to be the intended target population. No mention by any of the respondents was made of the disadvantaged students.

Job placement services

> Assisting students in making the transition from secondary education programs to the world of work.

This service is available to special needs students through 69.2% of the programs as indicated by the respondents. The providers of this service was described to be vocational education (83.3%), special education (62.5%), the regular school/district (50.0%), and the community (29.2%). The target population was indicated to be all-students (81.8%) and handicapped students (18.2%). The disadvantaged student was not mentioned by any of the respondents.

Job follow-up services

> Assisting former students in their employment opportunities through work adjustment and skill development, and to identify the strengths and weaknesses of the secondary program.

This service was indicated as being available to special needs students by 70.3% of the respondents. The providers of this service were described to be vocational education (66.7%), special education (58.3%), the regular school/district (41.7%), and the community (25.0%). All-students (78.9%) and handicapped students (21.1%) were described to be the intended target population. The disadvantaged student was not mentioned by any of the respondents.

Work experience and career exploration

> To provide students with a realistic view of all employment opportunities through actual job skill experiences and identification of the student's work values and attitudes.

This service was indicated as being available to special needs students by 97.4% of the respondents. All of the "no" responses were cited by 14.3% of the special education/service personnel. This service was described as being jointly provided by vocational education (75.7%), the regular school/district (40.5%), special education (37.8%), and the community (13.5%). All-students (77.8%), handicapped students (13.9%), and disadvantaged students (8.3%) were indicated to be the target population. None of the vocational directors cited handicapped students as the intended target population, while none of the special education/

service personnel cited disadvantaged students as the intended target population.

Work experience for the handicapped

To provide students with job learning experiences that would increase employment opportunities and success.

This service was indicated as being available to special needs students by 87.8% of the respondents. The providers of this service were described to be special education (85.3%), vocational education (61.8%), the community (23.5%), and the regular school/district (20.6%). The target population was indicated to be handicapped students (82.4%) and all-students (17.6%). None of the special education service personnel indicated all-students as the target population. In addition, none of the respondents cited the disadvantaged student as the intended target population.

Work experience for the disadvantaged

To provide students with actual job learning experiences that would increase employment opportunities and success.

This service was described to be much the same as the service titled work experience for the handicapped. Differences were cited by the respondents with regard to the provider of the service and the intended target population. Overall, 82.5% of the respondents indicated that this service was available to their special needs students. The provider of this service was described to be mainly vocational education (71.9%), as well as special education (37.5%) and the regular school/district (25.0%). The intended target population was indicated to be the disadvantaged student (54.2%), all-students (25.0%), and the handicapped student (20.8%). All of the special education/service personnel indicated that the intended target population was the disadvantaged student.

Curriculum modification and development services

The development and modification of curriculum materials designed to meet the educational programming needs of the student.

This service was indicated to be available by 61.5% of the respondents. The providers of the service was described to be special education (82.6%), the regular school/district (60.9%), and vocational education (34.8%). All-students (63.6%) and handicapped students (36.4%) were indicated to be the intended target population by the respondents. None of the respondents cited the disadvantaged student as the intended target population.

Equipment/facilities modification and development services

The development and modification of equipment and educational setting(s) in order to meet the educational programming needs of the student.

Only 51.3% of the respondents indicated that this service was available to their special needs students. The main provider of this service was described to be special education (78.9%). Other providers cited were the regular school/district (31.6%), vocational education (21.1%), and the community (21.1%). The intended target population was described to be handicapped students (60.0%) and all-students (40.0%). Handicapped students were cited by all of the special education/service personnel, while the disadvantaged student was not cited by any of the respondents.

Instructional material modification and development services

Development and modification of instructional materials and techniques in order to meet the educational programming needs of the student.

This service was indicated as being available to special needs students by 69.2% of the respondents. The provider of this service was described to be special education (80.8%), the regular school/district (50.0%), and vocational education (26.9%). The respondents indicated that the intended target population was all-students (63.6%) and handicapped students (36.4%). The handicapped student was cited by 75.0% of the special education/service personnel while no respondent mentioned the disadvantaged student.

Parent counseling and training services

The development and encouragement of effective parent/child relationships, child rearing skills, and home/school relationships.

This service was indicated as being available by 66.6% of the respondents. The providers of the service that were cited by the respondents were special education (69.6%), the community (47.8%), the regular school/district (26.1%), and vocational education (17.4%). The target population was described to be all-students (90.0%) and handicapped students (10.0%). Handicapped students were cited by 33.3% of the special education/service personnel and 10.0% of the special education council/cooperative directors. None of the respondents cited the disadvantaged student as the intended target population.

Social and recreational experiences

The provision of leisure time activities and opportunities that

serve to enhance the educational program of the student.

Only 56.8% of the respondents indicated that this service is available to their special needs students. The community (70.0%), the regular school/district (50.0%), and special education (30.0%) were described as the providers of this service. All-students (76.5%) and handicapped students (12.5%) were indicated as the intended target population of this service. None of the respondents cited the disadvantaged student.

Summary

The Vocational Special Services Survey, conducted through this research effort, accomplished an overall completed return rate of 70.7%. Special education and special services personnel were the least likely to respond to this type of survey instrument and procedure. In addition, time constraints to individual schedules was cited as the major factor that deterred the respondents from completing the survey instrument.

Overall, over 70.0 percent of the respondents indicated that 15 of the 25 services were available to special needs students through their programs. Of the remaining ten services, only 45.0 to 69.9 percent of the respondents indicated that these services were available to special needs students through their programs. The ten services with more limited availability were medical services; physical therapy services, technical tutoring services; reader and interpreter services; job placement services; curriculum modification and development services; equipment/facilities modification and development services; instructional materials modification and development services; parent counseling/training services; and social and recreational experiences.

The overall responses related to the provider of the 25 services indicated that the delivery of these services was a combined effort between special education, vocational education, the regular school/district, and/or community. However, special education was cited as the more frequent provider for 14 of the 25 services. Of the remaining 11 services, vocational education was cited most frequently as the provider for technical tutoring; job seeking and job keeping skill development experiences; job placement services; job follow-up services; work experience and career exploration; and work experience for the disadvantaged.

The regular school/district was cited as the most frequent provider for guidance services, medical services, remedial reading services, and transportation services. The community was cited as the most frequent provider for social and recreational experiences. These trends do suggest that the traditional educational areas (e.g., vocational education, special education) are operating as would be expected in the school districts. However, keeping in mind that a combination of providers was cited by the respondents for each service, this suggests that cooperation and communication is occurring between the educational areas and that these areas are providing services that they are most qualified to offer. That is, vocational educators are providing the work-related services (e.g., job placement services, job follow-up services) and regular educators are providing the traditional services (e.g., guidance services, medical services). Finally, the community was consistently the least cited provider of these typical services which suggest that the community may be an educational resource that is often overlooked.

A very positive trend was noted in the responses given in reference to the intended target population of these services. The often cited category of "all-students" as the intended target population suggests that these services are being made available to all students independent of special characteristics or labels. However, the lack of responses indicating the disadvantaged learner as the intended target population may suggest that relatively less attention is being given to provide appropriate educational opportunities to these students. Finally, the validity of some of the responses to the question of target audience are highly suspect. For example, respondents in this study indicated all-students as an intended target population of work experience services for the handicapped and indicated handicapped students and all-students as an intended target population for work experience services for the disadvantaged. By the nature of these programs, these responses are highly inappropriate and warrant further investigation.

Chapter V

DISCUSSION AND RECOMMENDATIONS

The major intent of this research effort was to enhance the knowledge base related to better understanding special needs programs and evaluation activities that relates to these programs. This was accomplished through: (a) the development of a conceptual framework that is intended to provide direction to activities related to improving the quality of special needs programs and (b) the identification of an evaluation basis by which evaluation concerns related to special needs programs could be addressed. In addition, activities were undertaken to further identify and describe the typical services provided to special needs students in order to identify how special needs students are being serviced and what program activities need to be documented and evaluated.

Like many research activities, only a few questions have been identified and potentially resolved, while many more have yet to be identified and studied. The research activities and findings described in this report lead to the identification of related research questions and provide direction to future research and evaluation efforts. The following recommendations are offered.

First, the proposed conceptual framework and evaluation basis is intended to provide a functional structuring for the special needs program of evaluative research undertaken by the MRDC. Additional efforts to determine whether other universities and research centers are also able to benefit from this framework and evaluation basis would add confidence in this approach.

Second, each of the aspects [pre-assessment (content), instructional design (input), instructional delivery (process), and post-assessment (product)] of the evaluation basis should be further examined and expanded to include a recommended evaluation approach for each aspect and perspective (formative/summative). This could include the development of valid and reliable instruments and procedures specific to various federal, state, and local audiences.

Third, with respect to the Vocational Special Services Survey

conducted, the unique characteristics of those individuals who did not respond to the survey need to be identified and addressed to determine the impact their responses might have had on the results. On-site visitations, given the time and financial resources, may provide new insights to the survey results.

Fourth, since the nature of the survey was strictly descriptive, activities were not undertaken to address the reliability and validity of the responses obtained through the Vocational Special Services Survey. The service titles and summary statements which reflect the purposes and objective(s) of the set of 25 services, require further study. A more detailed analysis of the intended target population categories and service characteristics should be undertaken to further specify and link learner characteristics to service characteristics. Reactions from local and state educational personnel should be obtained in making these refinements. After revisions, activities should be designed and conducted that would more thoroughly address the notions of reliability and validity.

Finally, if the proposed conceptual framework is to have any validity in terms of use, there must be some connection between the framework and the set of potential services. Further expnasion of the framework could include the specification of possibly another level which would depict the relationship between the services and the conceptual framework. The development of one or more matrices may also be undertaken as an approach to identify the links between the services and the framework. For example, a matrix structuring the program domains by the intended target population could be developed to depict possible relationships.

REFERENCES

Albright, L., Fabac, J., & Evans, R. N. *A system for the identification, assessment and evaluation of the special needs learner in vocational education.* Urbana, Illinois: Bureau of Educational Research, University of Illinois; 1979.

Altfest, M. *Vocational education for students with special needs: An administrator's handbook.* Fort Collins, Colorado: Department of Vocational Education, Colorado State University, January, 1975.

Cronbach, L. J., & Glaser, G. C. *Psychological tests and personal decisions* (2nd ed.). Urbana: University of Illinois Press, 1965.

Cronbach, L. J., & Snow, R. E. *Aptitude and instructional methods.* New York: Irvington, 1977.

Gallagher, J. J. Organizational needs for quality special education. In M. C. Reynolds (Ed.). *Futures of education for exceptional students: Emerging structures.* Reston, VA: The Council for Exceptional Children, 1978.

Halloran, W., Foley II, R., Razeghi, J., & Hull, M. *Vocational education for the handicapped: Resource guide to federal regulations.* Texas Regional Resource Center, April, 1978.

Howard, R. *Vocational education of handicapped youth--state of the art.* A report by the National Association of State Boards of Education, 1979.

Kennedy, M. M. *Designing of a flexible evaluation: The evaluation of public law 94-142.* Paper presented at the annual meeting of the American Educational Research Association, CA., April, 1979.

Legislative Recommendations Task Force. *Update,* January, 1980, 13.

Morris, L. L., & Fitz-Gibbon, C. T. *Evaluator's handbook.* Beverly Hills, California: Sage Publications, Inc., 1978.

Olympus Research Corporation. *An assessment of vocational education programs for the handicapped under part b of the 1968 amendments to the vocational education act.* Salt Lake City: Olympus Research Corporation, 1975.

Orlich, D. C. & Murphy, R. R. *Selected models and elements of evaluation for vocational educators.* Olympia, Washington: Research Coordinating Unit, Washington State Commission for Vocational Education, March, 1979.

Peak, L. *A content analysis study of special needs teacher training materials usable with vocational education personnel.* Unpublished master's thesis, University of Minnesota, 1980.

Peak, L. & Brown, J. *A conceptual framework and process for identifying the inservice needs of vocational educators serving special needs populations.* Minneapolis, MN: Minnesota Research and Development Center for Vocational Education. Report in preparation, 1980.

Phelps, L. A. *Critical variables and considerations in longitudinal studies of former vocational education students classified as special population.* Paper prepared for The National Center for Research in Vocational Education, January, 1979.

Phelps, L. A. & Wentling, T. L. A proposed system for the identification, assessment, and evaluation of special needs learners.) *Journal of Industrial Teacher Education*, 1977, Volume 14, 3, pages 19-35.

Reynolds, M. C. & Birch, L. W. *Teaching exceptional children in all america's schools.* Reston, VA: The Council for Exceptional Children, 1977.

Schneck, G. R., Lerwick, L. P., & Copa, G. H. *Assessment of the prevalence and service need requirements of handicapped and disadvantaged students in vocational-training education programs in Minnesota.* Minneapolis, MN: Minnesota Research and Development Center for Vocational Education, January, 1978.

State of Minnesota, Department of Education. *Minnesota Education Units Organized Under Joint Power Act.* St. Paul, 1979.

State of Minnesota, Department of Education. *Vocational Directors and Other Administrative Personnel in Large School Districts with Vocational Education in Grades K-12.* St. Paul, 1979.

Stevenson, B. *Evaluation of programs and services for special needs populations.* Paper presented at the American Vocational Association Convention, CA., December, 1979.

Stufflebeam, D. L., Foley, W. J., Gephart, W. J., Guba, E. G., Hammond, R. L., Merriman, H. E., & Provus, M. M. *Educational evaluation and decision making in education.* Itasca, Illinois: Peacock, 1971.

U. S. Office of Education. *Progress toward a free appropriate public education. A report to congress on the implementation of P.L. 94-142: The education for all handicapped children act.* January, 1979.

Weisman, L., & Brubaker, D. *Matrix and guidelines for criteria for evaluating special needs vocational programs.* Paper presented at the workshop on Developing Criteria for Evaluating Special Needs Vocational Programs, Houston, Texas, December, 1976.

Wentling, T. L., & Russo, R. P. A review of basis and systems for the evaluation of services provided to special needs learners. *Journal of vocational education research*, Fall 1978, Volume 3, 4, pages 31-44.

Worthen, B. R. & Sanders, J. R. *Educational evaluation: Theory and practice*. Belmont, California: Charles A. Jones, 1973.

APPENDIX A
POTENTIAL SPECIAL NEEDS SUPPORT SERVICES

Appendix A

Potential Special Needs Support Services

Diagnostic/Prescriptive Services

Referral Services

Guidance Services

Psychological Services

Medical Services

Occupational Therapy Services

Physical Therapy Services

Remedial Reading Services

Remedial Math Services

Technical Tutoring Services

Homebound Instructional Services

Reader and Interpreter Services

Communication Skill Development Services

Transportation Services

Job Seeking and Job Keeping Skill Development Services

Job Placement Services

Job Follow-Up Services

Work Experience and Career Exploration

Work Experience for the Handicapped

Work Experiences for the Disadvantaged

Curriculum Modification and Development Services

Equipment/Facilities Modification and Development Services

Instructional Material Modification and Development Services

Parent Counseling and Training Services

Social and Recreational Experiences

APPENDIX B
VOCATIONAL SPECIAL SERVICES SURVEY INSTRUMENT

Minnesota Research and Development Center
for Vocational Education
Department of Vocational and Technical Education
University of Minnesota
Minneapolis, Minnesota 55455

VOCATIONAL SPECIAL SERVICES SURVEY

INSTRUCTIONS: Listed below are support services or experiences that may be offered to various vocational special needs students.* For each of these services or experiences please indicate its availability in your school. For those that are available, please also note the provider of the services and/or experiences; your school's official title(s) of these services or experiences; the intended target population; and a brief description of the purpose and objectives. *NOTE: PLEASE FEEL FREE TO ATTACH COPIES OF ANY EXISTING DOCUMENTS THAT WOULD PROVIDE US WITH A DETAILED DESCRIPTION OF THE PURPOSE AND OBJECTIVES OF THESE SERVICES AND/OR EXPERIENCES.*

DIAGNOSTIC/PRESCRIPTIVE SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

REFERRAL SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

*The phrase "special needs students" refers to individuals with characteristics which prevent them from succeeding in vocational education programs without additional or special assistance.

GUIDANCE SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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PSYCHOLOGICAL SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

MEDICAL SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

OCCUPATIONAL THERAPY SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

PHYSICAL THERAPY SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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_____

REMEDIAL READING SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

REMEDIAL MATH SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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_____

TECHNICAL TUTORING SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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HOMEBOUND INSTRUCTIONAL SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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_____

READER AND INTERPRETOR SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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COMMUNICATION SKILL DEVELOPMENT SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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TRANSPORTATION SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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JOB SEEKING AND JOB KEEPING SKILL DEVELOPMENT EXPERIENCES

Is this experience available? ____ YES ____ NO

If yes,

a) Who provides this experience? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this experience? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this experience? _____

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JOB PLACEMENT SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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JOB FOLLOW-UP SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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WORK EXPERIENCE AND CAREER EXPLORATION

Is this experience available? ____ YES ____ NO

If yes,

a) Who provides this experience? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this experience? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this experience? _____

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WORK EXPERIENCES FOR THE HANDICAPPED

Is this experience available? ___ YES ___ NO

If yes,

a) Who provides this experience? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this experience? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this experience? _____

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WORK EXPERIENCES FOR THE DISADVANTAGED

Is this experience available? ___ YES ___ NO

If yes,

a) Who provides this experience? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this experience? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this experience? _____

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CURRICULUM MODIFICATION AND DEVELOPMENT SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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EQUIPMENT/FACILITIES MODIFICATION AND DEVELOPMENT SERVICES

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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INSTRUCTIONAL MATERIAL MODIFICATION AND DEVELOPMENT SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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PARENT COUNSELING AND TRAINING SERVICES

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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SOCIAL AND RECREATIONAL EXPERIENCES

Is this experience available? ____ YES ____ NO

If yes,

a) Who provides this experience? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this experience? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this experience? _____

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_____

OTHER (SPECIFY) _____

Is this service available? ____ YES ____ NO

If yes,

a) Who provides this service? (check all appropriate)

____ Vocational Education ____ Special Education ____ Regular School/District

____ Community (e.g., private, university, government) ____ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

_____

_____

OTHER (SPECIFY)_____

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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_____

OTHER (SPECIFY) _____

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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OTHER (SPECIFY) _____

Is this service available? ___ YES ___ NO

If yes,

a) Who provides this service? (check all appropriate)

___ Vocational Education ___ Special Education ___ Regular School/District

___ Community (e.g., private, university, government) ___ Other (specify) _____

b) What is your school/district's official title for this service? _____

c) Who is the intended target population? _____

d) What are the objectives and purpose of this service? _____

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THANK YOU FOR YOUR COOPERATION !!

Please return to: Minnesota Research and Development Center for Vocational Education
Attention: Rocco P. Russo
B-12 Fraser Hall
106 Pleasant Street S.E.
Minneapolis, Minnesota 55455

APPENDIX C
PARTICIPATING SCHOOL DISTRICTS, SPECIAL EDUCATION INTERDISTRICTS AND COOPERATIVE CENTERS

Appendix C

Participating School Districts, Special Education Interdistricts and Cooperative Centers

Anoka School District
Bloomington School District
Brooklyn School District
Burnsville School District
Columbia Heights School District
Duluth School District
Eden Prairie School District
Edina School District
Fridley School District
Hopkins School District
Mankato School District
Minneapolis School District
Minnetonka School District
Mound School District
Mounds View School District
North St. Paul School District
Osseo School District
Richfield School District
Robbinsdale School District
Rochester School District
Rosemount School District
Roseville School District
St. Anthony School District
St. Cloud School District
St. Louis Park School District
St. Paul School District
South St. Paul School District
South Washington County School District
Spring Lake Park School District
Stillwater School District
Wayzata School District
White Bear Lake School District
Bemidji Regional Interdistrict Council
Benton Stearns Special Education Coop
Boundary Waters Special Education Coop
Crookston Regional Interdistrict Council
Crow River Pupil Study Services Coop
Detroit Lakes Special Education Coop
Fergus Falls Area Special Education Coop
Lake Agassiz Special Education Coop
Martin County Special Education Coop
Meeker/Wright Special Education Coop
Mid-Range Special Education Coop

Mid-State Cooperative Center
Minnesota River Valley Special Education Coop
Minnesota Valley Interdistrict Special Education Coop
Mower County Special Education Coop
Northwest Regional Interdistrict Council
River Bend Special Education Coop
Runestone Special Education Coop
St. Peter Interdistrict Special Education Coop
South Central Special Education Coop
Tri-County Coop Center
Waseca Area Regional Interdistrict Education Coop

APPENDIX D
DETAILED SURVEY RESULTS
TABLE 2, TABLE 3, TABLE 4

Table 2

Availability of Services

Service	Total responses			Vocational director responses			Special education/service personnel responses			Special education council/coop director responses		
	Availability			Availability			Availability			Availability		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Diagnostic/prescriptive services	97.4%	2.6	100.0% (39)	100.0%	-	100.0% (15)	100.0%	-	100.0% (7)	94.1%	5.9	100.0% (17)
Referral services	100.0%	-	100.0% (39)	100.0%	-	100.0% (14)	100.0%	-	100.0% (7)	100.0%	-	100.0% (18)
Guidance services	100.0%	-	100.0% (38)	100.0%	-	100.0% (14)	100.0%	-	100.0% (7)	100.0%	-	100.0% (17)
Psychological services	95.0%	5.0	100.0% (40)	92.9%	7.1	100.0% (14)	85.7%	14.3	100.0% (7)	100.0%	-	100.0% (19)
Medical services	53.8%	46.2	100.0% (39)	50.0%	50.0	100.0% (14)	42.9%	57.1	100.0% (7)	61.1%	38.9	100.0% (18)
Occupational therapy services	82.5%	17.5	100.0% (40)	71.4%	28.6	100.0% (14)	71.4%	28.6	100.0% (7)	94.7%	5.3	100.0% (19)
Physical therapy services	61.5%	38.5	100.0% (39)	53.8%	46.2	100.0% (13)	28.6%	71.4	100.0% (7)	78.9%	21.1	100.0% (19)
Remedial reading services	94.7%	5.3	100.0% (38)	92.9%	7.1	100.0% (14)	85.7%	14.3	100.0% (7)	100.0%	-	100.0% (17)
Remedial math services	86.1%	13.9	100.0% (36)	76.9%	23.1	100.0% (13)	71.4%	28.6	100.0% (7)	100.0%	-	100.0% (16)
Technical tutoring services	47.4%	52.6	100.0% (38)	53.8%	46.2	100.0% (13)	42.9%	57.1	100.0% (7)	44.4%	55.6	100.0% (18)
Homebound instructional services	97.5%	2.5	100.0% (40)	100.0%	-	100.0% (15)	85.7%	14.3	100.0% (7)	100.0%	-	100.0% (18)
Reader and interpreter services	63.2%	36.8	100.0% (38)	71.4%	28.6	100.0% (14)	42.9%	57.1	100.0% (7)	64.7%	35.3	100.0% (17)
Communication skill development services	70.0%	30.0	100.0% (40)	66.6%	33.4	100.0% (15)	85.7%	14.3	100.0% (7)	66.6%	33.4	100.0% (18)
Transportation services	90.0%	10.0	100.0% (40)	100.0%	-	100.0% (15)	85.7%	14.3	100.0% (7)	83.3%	16.7	100.0% (18)
Job seeking/job keeping skill development experiences	94.7%	5.3	100.0% (38)	92.9%	7.1	100.0% (14)	85.7%	14.3	100.0% (7)	100.0%	-	100.0% (17)
Job placement services	69.2%	30.8	100.0% (39)	60.0%	40.0	100.0% (15)	57.1%	42.9	100.0% (7)	82.4%	17.6	100.0% (17)
Job follow-up services	70.3%	29.7	100.0% (37)	71.4%	28.6	100.0% (14)	57.1%	42.9	100.0% (7)	75.0%	25.0	100.0% (16)
Work experience and career exploration	97.4%	2.6	100.0% (38)	100.0%	-	100.0% (14)	85.7%	14.3	100.0% (7)	100.0%	-	100.0% (17)
Work experience for the handicapped	87.8%	12.2	100.0% (41)	93.3%	6.7	100.0% (15)	57.1%	42.9	100.0% (7)	94.7%	5.3	100.0% (19)
Work experience for the disadvantaged	82.5%	17.5	100.0% (40)	92.9%	7.1	100.0% (14)	71.4%	28.6	100.0% (7)	78.9%	21.1	100.0% (19)
Curriculum modification and development services	61.5%	38.5	100.0% (39)	46.7%	53.3	100.0% (15)	71.4%	28.6	100.0% (7)	70.6%	29.4	100.0% (17)
Equipment/facilities modification and development services	51.3%	48.7	100.0% (39)	42.9%	57.1	100.0% (14)	57.1%	42.9	100.0% (7)	55.6%	44.4	100.0% (18)
Instructional material modification and development services	69.2%	30.8	100.0% (39)	66.6%	33.4	100.0% (15)	71.4%	28.6	100.0% (7)	70.6%	29.4	100.0% (17)
Parent counseling and training services	66.6%	33.4	100.0% (39)	57.1%	42.9	100.0% (14)	71.4%	28.6	100.0% (7)	72.2%	27.8	100.0% (18)
Social and recreational experiences	56.8%	43.2	100.0% (37)	69.2%	30.8	100.0% (13)	57.1%	42.9	100.0% (7)	47.1%	52.9	100.0% (17)

Table 3

Provider of the Services

Service	Categories of respondents sampled: Total responses — Provider: Vocational education	Special education	Regular education	Community	Total responses	Total responded	Vocational director responses — Provider: Vocational education	Special education	Regular education	Community	Total responses	Total responded
Diagnostic/prescriptive services	28.6%	91.4	34.3	25.7	180.0% (63)	100.0% (35)	41.7%	100.0	41.7	16.6	200.0% (24)	100.0% (12)
Referral services	41.0%	87.2	22.0	28.2	212.8% (83)	100.0% (39)	121.4%	85.7	57.1	21.4	214.3% (30)	100.0% (14)
Guidance services	34.2%	23.7	94.7	13.2	165.8% (63)	100.0% (38)	28.6%	28.6	100.0	7.1	164.3% (23)	100.0% (14)
Psychological services	5.5%	100.0	25.0	27.7	158.3% (57)	100.0% (36)	9.0%	100.0	36.4	36.4	181.8% (20)	100.0% (11)
Medical services	15.0%	35.0	60.0	20.0	135.0% (27)	100.0% (20)	14.3%	57.1	71.4	-	142.8% (10)	100.0% (7)
Occupational therapy services	-	90.9	3.0	24.2	118.2% (39)	100.0% (33)	-	100.0	10.0	10.0	120.0% (12)	100.0% (10)
Physical therapy services	-	66.7	4.2	50.0	120.8% (29)	100.0% (24)	-	85.8	-	28.6	114.4% (8)	100.0% (7)
Remedial reading services	16.7%	38.9	77.8	11.1	147.2% (53)	100.0% (36)	7.7%	38.5	76.9	7.7	130.8% (17)	100.0% (13)
Remedial math services	10.7%	57.1	57.1	3.6	128.6% (36)	100.0% (28)	-	60.0	70.0	-	130.0% (13)	100.0% (10)
Technical tutoring services	88.2%	23.5	29.4	5.9	147.1% (25)	100.0% (17)	71.4%	14.3	28.6	-	114.4% (8)	100.0% (7)
Homebound instructional services	-	79.5	38.5	-	117.9% (46)	100.0% (39)	-	73.3	40.0	-	113.3% (17)	100.0% (15)
Reader and interpreter services	21.7%	69.6	26.1	13.0	130.4% (30)	100.0% (23)	33.3%	33.3	44.4	-	111.1% (10)	100.0% (9)
Communication skill development services	10.7%	75.0	39.3	3.6	128.6% (36)	100.0% (28)	10.0%	50.0	50.0	-	110.0% (11)	100.0% (10)
Transportation services	14.3%	28.6	88.6	8.6	140.0% (49)	100.0% (35)	26.7%	26.7	86.7	6.7	146.7% (22)	100.0% (15)
Job seeking/job keeping skill development experiences	82.4%	52.9	50.0	8.8	220.0% (66)	100.0% (34)	84.6%	30.8	38.5	7.7	161.5% (21)	100.0% (13)
Job placement services	83.3%	62.5	50.0	29.2	225.0% (54)	100.0% (24)	88.9%	55.6	33.3	22.2	200.0% (18)	100.0% (9)
Job follow-up services	66.7%	58.3	41.7	25.0	191.7% (46)	100.0% (24)	77.8%	55.6	55.6	22.2	211.1% (19)	100.0% (9)
Work experience and career exploration	75.7%	37.8	40.5	13.5	167.6% (62)	100.0% (37)	85.7%	35.7	28.6	7.1	157.1% (22)	100.0% (14)
Work experience for the handicapped	61.8%	85.3	20.6	23.5	191.2% (65)	100.0% (34)	69.2%	76.9	15.4	7.7	169.2% (22)	100.0% (13)
Work experience for the disadvantaged	71.9%	37.5	25.0	3.1	137.5% (44)	100.0% (32)	84.6%	7.7	7.7	-	100.0% (13)	100.0% (13)
Curriculum modification and development services	34.8%	82.6	60.9	4.3	182.6% (42)	100.0% (23)	33.3%	66.6	100.0	-	200.0% (12)	100.0% (6)
Equipment/facilities modification and development services	21.1%	78.9	31.6	21.1	152.6% (29)	100.0% (19)	-	66.7	33.3	-	100.0% (6)	100.0% (6)
Instructional material modification and development services	26.9%	80.8	50.0	11.5	169.2% (44)	100.0% (26)	20.0%	70.0	50.0	20.0	160.0% (16)	100.0% (10)
Parent counseling and training services	17.4%	69.9	26.1	47.8	160.9% (37)	100.0% (23)	42.8%	85.8	14.3	57.1	200.0% (14)	100.0% (7)
Social and recreational experiences	10.0%	30.0	50.0	70.0	160.0% (32)	100.0% (20)	12.5%	37.5	50.0	50.0	150.0% (12)	100.0% (8)

Table 3 (continued)

Provider of the Service

Service	Categories of respondents sampled: Special education/service personnel responses — Provider: Vocational education	Special education	Regular education	Community	Total responses	Total responded	Special education council/cooperative director responses — Provider: Vocational education	Special education	Regular education	Community	Total responses	Total responded
Diagnostic/prescriptive services	42.8%	85.8	42.8	28.6	200.0% (14)	100.0% (7)	12.5%	87.5	25.0	31.3	156.3% (25)	100.0% (16)
Referral services	28.6%	85.8	42.8	-	157.2% (11)	100.0% (7)	38.9%	88.9	61.1	44.4	233.3% (42)	100.0% (18)
Guidance services	28.6%	14.3	85.8	-	128.7% (9)	100.0% (7)	41.2%	23.5	94.1	23.5	182.3% (31)	100.0% (17)
Psychological services	100.0%	-	-	-	100.0% (6)	100.0% (6)	5.3%	100.0	26.3	31.6	163.2% (31)	100.0% (19)
Medical services	33.3%	66.7	-	33.3	133.3% (4)	100.0% (3)	10.0%	10.0	70.0	40.0	130.0% (13)	100.0% (10)
Occupational therapy services	-	100.0	-	-	100.0% (5)	100.0% (5)	-	83.3	-	38.9	122.2% (22)	100.0% (18)
Physical therapy services	-	100.0	-	-	100.0% (2)	100.0% (2)	-	53.3	6.7	66.7	126.7% (19)	100.0% (15)
Remedial reading services	16.7%	50.0	66.7	-	150.0% (9)	100.0% (6)	23.5%	35.3	82.4	17.6	152.9% (27)	100.0% (17)
Remedial math services	25.0%	75.0	-	-	100.0% (4)	100.0% (4)	14.3%	50.0	64.3	7.1	135.7% (19)	100.0% (14)
Technical tutoring services	100.0%	-	-	-	100.0% (3)	100.0% (3)	100.0%	42.8	42.8	14.3	200.0% (14)	100.0% (7)
Homebound instructional services	-	83.3	33.3	-	116.7% (7)	100.0% (6)	-	83.3	38.9	-	122.2% (22)	100.0% (18)
Reader and interpreter services	66.6%	66.6	-	-	133.2% (4)	100.0% (3)	-	100.0	18.1	27.3	145.4% (16)	100.0% (11)
Communication skill development services	16.7%	83.3	16.7	-	116.7% (7)	100.0% (6)	8.3%	91.7	41.7	8.3	150.0% (18)	100.0% (12)
Transportation services	-	33.3	66.6	-	100.0% (6)	100.0% (6)	7.1%	28.6	100.0	14.3	150.0% (21)	100.0% (14)
Job seeking/job keeping skill development experiences	100.0%	66.6	33.4	-	200.0% (12)	100.0% (6)	73.3%	66.7	66.7	13.3	220.0% (33)	100.0% (15)
Job placement services	100.0%	75.0	25.0	-	200.0% (8)	100.0% (4)	72.7%	63.6	72.7	45.5	254.5% (28)	100.0% (11)
Job follow-up services	100.0%	50.0	25.0	25.0	200.0% (8)	100.0% (4)	45.5%	63.6	36.4	27.3	172.7% (19)	100.0% (11)
Work experience and career exploration	100.0%	33.3	33.3	33.3	200.0% (12)	100.0% (6)	58.8%	41.2	52.9	11.8	164.7% (28)	100.0% (17)
Work experience for the handicapped	75.0%	100.0	-	25.0	200.0% (8)	100.0% (4)	52.9%	88.2	29.4	35.3	205.9% (35)	100.0% (17)
Work experience for the disadvantaged	75.0%	-	50.0	-	125.0% (5)	100.0% (4)	60.0%	73.7	33.3	6.7	173.3% (26)	100.0% (15)
Curriculum modification and development services	20.0%	80.0	40.0	-	140.0% (7)	100.0% (5)	41.7%	91.7	50.0	8.3	191.7% (23)	100.0% (12)
Equipment/facilities modification and development services	100.0%	100.0	33.3	100.0	333.3% (10)	100.0% (3)	10.0%	80.0	30.0	10.0	130.0% (13)	100.0% (10)
Instructional material modification and development services	50.0%	100.0	25.0	-	175.0% (7)	100.0% (4)	25.0%	83.3	58.3	8.3	174.9% (21)	100.0% (12)
Parent counseling and training services	25.0%	100.0	50.0	50.0	225.0% (9)	100.0% (4)	-	50.0	25.0	41.7	116.7% (14)	100.0% (12)
Social and recreational experiences	-	25.0	25.0	75.0	125.0% (5)	100.0% (4)	12.5%	25.0	62.5	87.5	187.5% (15)	100.0% (8)

Table 4

Target Population for the Services

Service	Categories of respondents sampled: Total responses — Target population: Handicapped	Disadvantaged	All students	Total	Vocational director responses — Target population: Handicapped	Disadvantaged	All students	Total
Diagnostic/prescriptive services	42.9%	-	57.1	100.0% (35)	30.7%	-	69.2	100.0% (13)
Referral services	27.3%	-	72.7	100.0% (33)	16.7%	-	83.3	100.0% (12)
Guidance services	11.8%	-	88.2	100.0% (34)	15.4%	-	84.6	100.0% (13)
Psychological services	12.1%	-	87.9	100.0% (33)	16.7%	-	83.3	100.0% (12)
Medical services	11.8%	-	88.2	100.0% (17)	-	-	100.0	100.0% (6)
Occupational therapy services	51.7%	-	48.3	100.0% (29)	33.3%	-	66.7	100.0% (9)
Physical therapy services	40.0%	-	60.0	100.0% (20)	33.3%	-	66.7	100.0% (6)
Remedial reading services	22.6%	-	77.4	100.0% (31)	20.0%	-	80.0	100.0% (10)
Remedial math services	26.9%	-	73.1	100.0% (26)	12.5%	-	87.5	100.0% (8)
Technical tutoring services	23.5%	-	76.5	100.0% (17)	28.6%	-	71.4	100.0% (7)
Homebound instructional services	9.1%	-	90.9	100.0% (33)	-	-	100.0	100.0% (12)
Reader and interpreter services	66.7%	-	33.3	100.0% (21)	37.5%	-	62.5	100.0% (8)
Communication skill development services	33.3%	3.0	63.7	100.0% (33)	20.0%	10.0	70.0	100.0% (10)
Transportation services	22.6%	-	77.4	100.0% (31)	25.0%	-	75.0	100.0% (12)
Job seeking/job keeping skill development experiences	27.6%	-	72.4	100.0% (29)	30.0%	-	70.0	100.0% (10)
Job placement services	18.2%	-	81.8	100.0% (22)	12.5%	-	87.5	100.0% (8)
Job follow-up services	21.1%	-	78.9	100.0% (19)	12.5%	-	87.5	100.0% (8)
Work experience and career exploration	13.9%	8.3	77.8	100.0% (36)	-	14.3	85.7	100.0% (14)
Work experience for the handicapped	82.4%	-	17.6	100.0% (34)	92.3%	-	7.7	100.0% (13)
Work experience for the disadvantaged	20.8%	54.2	25.0	100.0% (24)	10.0%	60.0	30.0	100.0% (10)
Curriculum modification and development services	36.4%	-	63.6	100.0% (22)	33.3%	-	66.7	100.0% (6)
Equipment/facilities modification and development services	60.0%	-	40.0	100.0% (15)	40.0%	-	60.0	100.0% (5)
Instructional material modification and development	36.4%	-	63.6	100.0% (22)	33.3%	-	66.7	100.0% (9)
Parent counseling and training services	10.0%	-	90.0	100.0% (20)	-	-	100.0	100.0% (7)
Social and recreational experiences	23.5%	-	76.5	100.0% (17)	12.5%	-	87.5	100.0% (8)

Table 4 (continued)

Target Population for the Services

Service	Categories of respondents sampled: Special education/service personnel responses — Target population: Handicapped	Disadvantaged	All students	Total	Special education council/cooperative director responses — Target population: Handicapped	Disadvantaged	All students	Total
Diagnostic/prescriptive services	71.4%	-	28.6	100.0% (7)	40.0%	-	60.0	100.0% (15)
Referral services	57.1%	-	42.9	100.0% (7)	21.4%	-	78.6	100.0% (14)
Guidance services	28.6%	-	71.4	100.0% (7)	-	-	100.0	100.0% (14)
Psychological services	-	-	100.0	100.0% (5)	12.5%	-	87.5	100.0% (16)
Medical services	33.3%	-	66.7	100.0% (3)	12.5%	-	87.5	100.0% (8)
Occupational therapy services	60.0%	-	40.0	100.0% (5)	60.0%	-	40.0	100.0% (15)
Physical therapy services	100.0%	-	-	100.0% (2)	33.3%	-	66.7	100.0% (12)
Remedial reading services	66.7%	-	33.3	100.0% (6)	6.7%	-	93.3	100.0% (15)
Remedial math services	100.0%	-	-	100.0% (5)	7.7%	-	92.3	100.0% (13)
Technical tutoring services	50.0%	-	50.0	100.0% (4)	-	-	100.0	100.0% (6)
Homebound instructional services	16.7%	-	83.3	100.0% (6)	13.3%	-	86.7	100.0% (15)
Reader and interpreter services	100.0%	-	-	100.0% (3)	80.0%	-	20.0	100.0% (10)
Communication skill development services	45.5%	-	54.5	100.0% (11)	33.3%	-	66.7	100.0% (12)
Transportation services	50.0%	-	50.0	100.0% (6)	23.1%	-	69.2	100.0% (13)
Job seeking/job keeping skill development experiences	40.0%	-	60.0	100.0% (5)	21.4%	-	78.6	100.0% (14)
Job placement services	33.3%	-	66.7	100.0% (3)	18.2%	-	81.8	100.0% (11)
Job follow-up services	33.3%	-	66.7	100.0% (3)	25.0%	-	75.0	100.0% (8)
Work experience and career exploration	33.3%	-	66.7	100.0% (6)	18.8%	6.2	75.0	100.0% (16)
Work experience for the handicapped	100.0%	-	-	100.0% (4)	70.6%	-	29.4	100.0% (17)
Work experience for the disadvantaged	-	100.0	-	100.0% (2)	33.3%	41.7	25.0	100.0% (12)
Curriculum modification and development services	80.0%	-	20.0	100.0% (5)	18.2%	-	81.8	100.0% (11)
Equipment/facilities modification and development services	100.0%	-	-	100.0% (3)	57.1%	-	42.9	100.0% (7)
Instructional material modification and development services	75.0%	-	25.0	100.0% (4)	22.2%	-	77.8	100.0% (9)
Parent counseling and training services	33.3%	-	66.7	100.0% (3)	10.0%	-	90.0	100.0% (10)
Social and recreational experiences	66.7%	-	33.3	100.0% (3)	16.7%	-	83.3	100.0% (6)